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Yung-Seop Lee

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JAMES M. STOVER
TERADATA CORPORATION
2835 MIAMI VILLAGE DRIVE
MIAMISBURG, OH 45342

EXAMINER

CHOI, PETER H

ART UNIT

PAPER NUMBER

3623

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/782,149

Applicant(s)

LEE, YUNG-SEOP

Examiner

PETER CHOI

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-16 is/are rejected.
- 7) ☒ Claim(s) 1, 10, 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. The following is a **FINAL** action of pending claims 1-7 and 10-16, which have been examined on the merits discussed below.

Response to Amendment

2. Claims 14-16 have been added in the amendment filed October 15, 2007.
3. Claims 8 and 9 have been canceled in the amendment filed October 15, 2007.
4. The previous rejection of the claims raised under 35 U.S.C. 101 is withdrawn in view of amendments made to the claims filed October 15, 2007.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 10, 11, 12 and 13 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments with respect to claims 1, 10, 11, 12, and 13 have been addressed in the updated rejection below.

Specifically, Applicant argues that Hughes fails to show or suggest "assigning an evaluation score to each customer record based on the rank of each customer record after the fifth sorting and independent of the discretized attribute scores". Applicant asserts that Hughes' use of recency, frequency and monetary attributes to evaluate customers is not the same as the claimed invention where an evaluation score is

assigned based on the rank of each customer record after the fifth sorting and independent of the discretized attribute scores.

Official Notice

6. In the previous Office Action mailed January 11, 2005, notice was taken by the Examiner that certain subject matter is old and well known in the art. Per MPEP 2144.03(c), these statements are taken as admitted prior art because no traversal of this statement was made in the subsequent response. Specifically, it has been taken as prior art that:

- The concept of sorting data by a certain attribute is old and well known in the art
- It is old and well known in the art that computer spreadsheets can sort records according to any attribute by which the record is defined
- it is old and well known in the art that airlines keep extensive records of passengers, including a flight history (how often the customer flies, the number of flights flown, and the destination and point of origin for each flight segment) and the revenue generated
- It is old and well known in the art that data analysis cannot be conducted until pertinent information has been obtained
- It is old and well known in the art that the number of groups used to sort records is subjective, depending on the size of the airline's customer database and their desired level of analysis

- it is old and well known in the art that evaluations and performance ratings are commonly made on a 1 to 100 scale.

Claim Objections

7. Claims 1, 10, 12, and 13 are objected to because of the following informalities: "forth" is incorrectly spelled. Examiner assumes that "forth" is intended to be spelled "fourth". Appropriate correction is required.
8. Limitation (g) of claim 1 recites the step of "selecting the customer records that having the highest assigned evaluation scores". The grammatical error of "that having the" must be resolved. Examiner has assumed that the limitation intends to select "the customer records that have the highest assigned evaluation scores". Correction is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
10. Claims 1-7, 10 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arthur Hughes' "Quick Profits with RFM Analysis" (previously

provided and herein referred to as Hughes) in view of Jones et al. (US Patent #6,925,441).

As per claim 1, Hughes teaches a computer implemented **(on a spreadsheet; Window's based RFM program called RFM for Windows)** [Paragraphs 13, 16] method of evaluating a plurality of customer records stored in a computer database **(code the customer database for RFM)** [Paragraph 2] to identify high value customers to be targeted by a customer retention or reward program **(Database marketers, today however, are finding that they can greatly increase response rates to direct marketing to their existing customers by use of Recency, Frequency, Monetary (RFM) analysis)** [Paragraph 1], each customer record having at least a first attribute and a second attribute, each of the first attribute and the second attribute having an associated attribute value **{each customer record tracks the most recent discretionary purchase date, the number of transactions, and the total dollar sales}**, the method comprising:

- (a) first sorting the plurality of customer records based on the first attribute **(the database is sorted by the total dollar sales)** and assigning a discretized attribute to each customer record where the first discretized attribute is based on the sorted rank of the customer record for each of the attribute values **(code of 1,2,3,4, or 5, the top 20% given a code of "5", the next 20% coded as a "4", etc.)** [Paragraph 8];
- (b) second sorting the plurality of customer records based on the second attribute **(If your database keeps track of the number of transactions with your**

customers, you can also code your customers by frequency. Sorting the database by this number - from the most to least frequent) and assigning a second discretized attribute to each customer record where the second discretized attribute is based on the sorted rank of the customer record **(coding the top 20% as “5”, and the less frequent quintiles as 4, 3, 2, and 1)** [Paragraph 6];

(c) third sorting the plurality of customer records in to an order **(by most total dollar sales to least total dollar sales)** based on the assigned first discretized attribute scores associated with the first attribute **(monetary value)** [Paragraph 8];

(d) fourth sorting the ordered plurality of customer records resulting from the third sorting in to an order **(by most frequent to least frequent)** where the customer records having the same discretized attribute scores are further sorted based on the assigned discretized attribute scores associated with the second attribute **(frequency)** **{The records are sorted by the ‘monetary value’ attribute so that all records with a ‘monetary value’ attribute of “5” are grouped together, all records with a ‘monetary value’ attribute of “4” are grouped together, etc. Within each grouping, the records are again sorted according to the ‘frequency attribute’}** [Paragraph 6];

(e) fifth sorting the ordered plurality of customer records resulting from the fourth sorting in to an order based on the attribute values associated with at least the first attribute and the second attribute, until records, which have different attribute values associated with at least the first attribute or the second attribute, have been sorted to different ranks **{The records are sorted by the ‘monetary value’ and ‘frequency’ attributes so that within each grouping, all records with a ‘monetary value’**

attribute of “5” and a ‘frequency’ attribute of “5” are grouped together, all records with a ‘monetary value’ attribute of “5” and a ‘frequency’ attribute of “4” are grouped together, etc.}

Hughes does not explicitly teach the steps of:

- (f) assigning an evaluation score to each customer record based on the rank of each customer record after the fifth sorting and independent of the discretized attribute scores; and
- (g) identifying the high value customers by selecting the customer records that have the highest assigned evaluation scores.

Although Hughes teaches the steps of assigning an evaluation score (**RFM cell code assignment**) to each customer record [Paragraph 10] based on the rank of each customer record after the fifth sorting, the evaluation score taught by Hughes is not explicitly independent of the discretized attribute scores for the first and second attributes.

However, Jones et al. teaches the step of assigning an evaluation score to each customer record based on a ranking according to discretized attribute scores for two attributes **{amount and frequency of purchase}** and further independent of said discretized attribute scores (**Based upon the amount, frequency of purchase, and other factors such as customer profile (e.g., customer demographic data, wealth,**

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risk, interest, and other indicators), a customer value score 132 is calculated; A customer value score 172 which strictly relates to the customer's purchasing habits, is combined together with an offer specific score 174 which takes into account customer spending, customer financial, and demographic group data are combined together with information relating to the costs of making the offer 176 to the consumer. These three series of factors and variables are presented to the NPV calculation engine 178 to arrive at an NPV score) [Column 14, lines 12-16, Column 15, lines 37-44].

Jones et al. also teaches the step of identifying high value customers by selecting the customer records having the highest assigned evaluation scores (it is the objective of the present invention to provide the highest value of offers to the customer and to also maximize the customer response to those offers, it is desired to have NPV thresholds set at a significantly high level such that customers will respond to the offers. Thus, after creation of the NPV for the offer in question 98 the present invention next determines if the NPV is at a threshold high enough 102 to be offered to the customer. If the NPV threshold is exceeded, the offer is sent to the customer 104; presenting an offer to the customer when the offer value resulting from the net present value calculation is at or above a specific offer value threshold) [Column 13, lines 1-10, claim 1].

Both Hughes and Jones et al. are directed towards targeted marketing using customer purchasing behavior databases that monitors customer purchase frequency, amounts, and how often purchases are made; thus, Hughes and Jones et al. are analogous references in the art of database marketing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Hughes to assign evaluation scores independent of discretized attribute scores, and further to select customer records having the highest assigned evaluation scores identifying high value customers, because doing so enhances the ability of Hughes to use collected customer transaction data to evaluate customers in order to identify high value customers for targeted marketing offers, which is a goal of Hughes.

As per claim 2, Hughes teaches the method of claim 1, wherein step (a) includes the steps of:

- (i) breaking the sorted plurality of customer records into a number of groups **(quintiles)** based on the rank of each customer record and its first attribute values **(recency, frequency, and monetary)** [Paragraphs 4,6, and 8]; and
- (ii) for each customer record in a group, assigning the same first discretized attribute score **(coding the top 20% as "5", and the less frequent quintiles as 4, 3, 2, and 1)** [Paragraph 4,6, and 8].

As per claim 3, Hughes teaches the method of claim 1, wherein step (b) includes the steps of:

- (i) breaking the sorted plurality of customer records into a number of groups **(quintiles)** based on the rank of each customer record and its second attribute value **(recency, frequency, and monetary)** [Paragraphs 4, 6, and 8]; and
- (ii) for each customer record in a group, assigning the same second discretized attribute score **coding the top 20% as "5", and the less frequent quintiles as 4, 3, 2, and 1.**

As per claim 4, Hughes teaches the step of breaking customer records into quartiles **(Changing the division for Monetary from quintiles to quartiles (as shown by the number 4 on the right of the Monetary box))** and that customer records of each quartile are assigned one of the scores of 1,2,3 and 4 **{the top 25% are coded as a "4", the next 25% coded as a "3", etc.}** for the attribute values associated with the one of at least the first attribute and the second attribute [Paragraph 27].

As per claim 5, Hughes teaches the method of claim 1, wherein step (f) includes the steps of:

- (i) splitting the customer records, which have been sorted, into a number of groups based on their current ranking **(records are placed into one of 125 unique RFM cells) {the cell placement is done after records have been sorted according to attribute values}** [Paragraph 10].

Although not explicitly taught by Hughes, Jones et al. teaches the step of assigning an evaluation score for the customer records of each group **(Based upon the amount, frequency of purchase, and other factors such as customer profile (e.g., customer demographic data, wealth, risk, interest, and other indicators), a customer value score 132 is calculated; A customer value score 172 which strictly relates to the customer's purchasing habits, is combined together with an offer specific score 174 which takes into account customer spending, customer financial, and demographic group data are combined together with information relating to the costs of making the offer 176 to the consumer. These three series of factors and variables are presented to the NPV calculation engine 178 to arrive at an NPV score)** [Column 14, lines 12-16, Column 15, lines 37-44].

Both Hughes and Jones et al. are directed towards targeted marketing using customer purchasing behavior databases that monitors customer purchase frequency, amounts, and how often purchases are made; thus, Hughes and Jones et al. are analogous references in the art of database marketing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Hughes to assign evaluation scores independent of discretized attribute scores, and further to select customer records having the highest assigned evaluation scores identifying high value customers, because doing so enhances the ability of Hughes to

use collected customer transaction data to evaluate customers in order to identify high value customers for targeted marketing offers, which is a goal of Hughes.

As per claim 6, Hughes teaches the method of claim 1, wherein step (e) includes the steps of:

(i) splitting the customer records, which have been sorted, into 100 groups based on the current ranking of the customer records **(records are placed into one of 125 unique RFM cells; Changing the division for Monetary from quintiles to quartiles reduces the number of RFM cells to 100) {the cell placement is done after records have been sorted according to attribute values}** [Paragraphs 10, 27];

Regarding claim 6(ii), although not explicitly taught by Hughes, Jones et al. teaches the step of assigning an evaluation score to each customer record **(Based upon the amount, frequency of purchase, and other factors such as customer profile (e.g., customer demographic data, wealth, risk, interest, and other indicators), a customer value score 132 is calculated; A customer value score 172 which strictly relates to the customer's purchasing habits, is combined together with an offer specific score 174 which takes into account customer spending, customer financial, and demographic group data are combined together with information relating to the costs of making the offer 176 to the consumer. These three series of factors and variables are presented to the NPV calculation engine 178 to arrive at an NPV score)** [Column 14, lines 12-16, Column 15, lines 37-44], but

does not explicitly assign evaluation scores of between 1 and 100 for customer records of each group.

However, it is old and well known in the art that evaluations and performance ratings are commonly made on a 1 to 100 scale. Further, at the time of invention, it would have been an obvious matter of design choice to a person of ordinary skill in the art to assign evaluation scores of between 1 and 100 for customer records of each group because applicant has not disclosed that the range of scores used to evaluate customers solves any stated problem, is used for a particular purpose nor provides any advantage. Further, the Hughes-Jones combination would have been expected by those of ordinary skill in the art to perform equally well with any range of evaluation scores applied to customer records because the Hughes-Jones combination relies upon grouping and evaluating customers based on evaluations relative to other customers.

Both Hughes and Jones et al. are directed towards targeted marketing using customer purchasing behavior databases that monitors customer purchase frequency, amounts, and how often purchases are made; thus, Hughes and Jones et al. are analogous references in the art of database marketing. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Hughes to assign evaluation scores independent of discretized attribute scores, and further to select customer records having the highest assigned evaluation scores identifying high value customers, because doing so enhances the ability of Hughes to

use collected customer transaction data to evaluate customers in order to identify high value customers for targeted marketing offers, which is a goal of Hughes.

As per claim 7, Hughes fails to explicitly disclose the process of reiteratively performing step (d) of claim 1 until customer records, which have the same assigned first and second discretized attribute scores but different attribute values associated with at least the first attribute or the second attribute, have been sorted to different ranks. However, Hughes teaches that a spreadsheet can be used to sort records into different RFM cells and group them together with other records sharing the same two digit cell code (**meaning they have attribute values in the same quintile**) [Paragraphs 10 and 13].

The spreadsheet (embodied on a computer as software programs such as Microsoft Excel or Lotus 1-2-3) used to conduct the RFM analysis can also be used to sort records within the same RFM cell grouping. The spreadsheet software would perform step (d) once to sort records into RFM cell groupings, and once again within each RFM cell grouping to rank individual records by attribute value, if needed. The concept of sorting data by a certain attribute is old and well known in the art. It is old and well known in the art that computer spreadsheets can sort records according to any attribute by which the record is defined. Sorting the plurality of records would allow an airline to quickly reference, access, and retrieve data. Sorting customers into and within RFM cell groups may enable airlines to identify and prioritize key customers (for retention, targeted marketing promotions, etc). Therefore, it would have been obvious to

one of ordinary skill in the art at the time of invention to modify the teachings of Hughes to include sorting because doing so enhances the ability of Hughes to sort customers into different RFM cell groups, all cells will have virtually an identical number of customers, providing statistically valid information regarding the response rate of members in each cell, which influences which customers to focus marketing efforts on, a goal of RFM analysis as taught by Hughes [Paragraphs 10, 12].

As per claim 10, limitations (c)-(i) recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies.

Further, Hughes teaches:

(b) storing the records in a database (**code the customer database for RFM**) [Paragraph 2]

As per (a) obtaining records of each customer's contribution factors with associated values, the contribution factors including at least net revenue and number of flights:

Hughes teaches obtaining the frequency of customer purchases (i.e., number of flights) and monetary value of customer purchases (i.e., net revenue), but is not explicitly applied to customers in the airline industry; however, the generic analysis techniques taught by Hughes are applicable to any industry monitoring customer

behavior by maintaining a customer database that includes purchase history [Paragraph 4].

Although not explicitly taught by Hughes, it is old and well known in the art that airlines keep extensive records of passengers, including a flight history (how often the customer flies, the number of flights flown, and the destination and point of origin for each flight segment) and the revenue generated. It is old and well known in the art that data analysis cannot be conducted until pertinent information has been obtained. This information could be found on an existing computer database maintained by the airline that could easily be accessed by a computer performing the analysis (imported as a data file, through a file transfer protocol, the Internet, etc). This would eliminate the need to re-enter data into a new database, or to copy data from one format to another (spreadsheet to database, database to spreadsheet, etc). Accessing a computer file to obtain customer information would eliminate these unnecessary steps. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Hughes to include a means of obtaining customer records to enable an analysis to be performed because doing so enhances the ability of Hughes to sort customers into different RFM cell groups based on readily available customer transaction data, with each cell having virtually an identical number of customers, providing statistically valid information regarding the response rate of members in each cell, which influences which customers to focus marketing efforts on, a goal of RFM analysis as taught by Hughes [Paragraphs 10, 12].

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As per claim 14, Hughes teaches the method of claim 1, wherein step (b) includes the steps of:

(i) breaking the sorted plurality of customer records into quartiles(**Changing the division for Monetary from quintiles to quartiles (as shown by the number 4 on the right of the Monetary box)**) [Paragraph 27]; and

(ii) for customer records of the same quartile, assigning one of the scores of 1, 2, 3, and 4 as the second discretized attribute **{the top 25% are coded as a “4”, the next 25% coded as a “3”, etc.}** [Paragraph 27].

As per claim 15, Hughes teaches the method of claim 1, where the first attribute includes the revenue generated by the customer (**code customers by the total dollar sales**) [Paragraph 8].

As per claim 16, Hughes teaches the method of claim 1, where the second attribute includes the number of purchases made by the customer (**If your database keeps track of the number of transactions with your customers, you can also code your customers by frequency**) [Paragraph 6].

11. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes in view of Jones et al., and further in view of the Database Marketing Institute's RFM for Windows® (previously provided and herein referred to as RFM for Windows).

Claim 11 recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies

Further, while Hughes and Jones et al. are silent regarding a computer architecture for evaluating the plurality of records, RFM for Windows teaches a software, RFM for Windows® that performs the RFM analysis taught by Hughes. RFM for Windows® has codified means for performing the tasks required of an RFM analysis and therefore meets the limitation of this claim. Since it could automatically receive data from a file and perform an RFM analysis, use of this software would eliminate the need to manually process the records through a spreadsheet, and would automate the process of sorting records (both into and within RFM cells). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of the Hughes-Orme to incorporate the software of RFM for Windows to automate the process of conducting an RFM analysis.

Furthermore, it is well settled that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result. *In re Venner*, 120 USPQ 192. It was known at the time of the invention that merely providing an automated way to replace a well-known activity which accomplishes the same result is not sufficient to distinguish over the prior art. *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958).

Claim 12 recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies.

Further, although the Hughes-Jones combination is silent regarding a computer system for evaluating the plurality of records, RFM for Windows teaches a software, RFM for Windows® that performs the RFM analysis taught by Hughes. RFM for Windows® has codified means for performing the tasks required of an RFM analysis. RFM for Windows® discloses minimum hardware requirements for using the software. RFM for Windows® requires a computer system comprising of:

a **(80386)** processor [Paragraph 20]; and

a **(8 mb RAM)** memory coupled to the processor, the memory having stored therein sequences of instructions **(software)** [Paragraph 20], which, when executed by the processor, cause the processor to perform the steps of an RFM analysis as disclosed by Hughes.

RFM for Windows® has codified means for performing the tasks required of an RFM analysis and specifies the minimum hardware requirements for a computer system running the software, and therefore meets the limitation of this claim. Since it could automatically receive data from a file and perform an RFM analysis, use of this software would eliminate the need to manually process the records through a spreadsheet, and would automate the process of sorting records (both into and within RFM cells).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of the Hughes-Jones combination to incorporate the software of RFM for Windows to automate the process of conducting an RFM analysis.

Furthermore, it is well settled that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result. *In re Venner*, 120 USPQ 192. It was known at the time of the invention that merely providing an automated way to replace a well-known activity which accomplishes the same result is not sufficient to distinguish over the prior art. *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958).

Claim 13 recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies.

Further, although the Hughes-Jones combination is silent regarding a sequence of machine readable instructions in machine readable form, wherein execution of said instructions by one or more processors causes the one or more processors to evaluate a plurality of records, each record having at least a first attribute and a second attribute, each of the first attribute and the second attribute having an associated attribute value, RFM for Windows teaches a sequence of machine readable instructions in machine readable form (software), RFM for Windows®, wherein execution of the instructions by

one or more processors causes the one or more processors to perform the steps of an RFM analysis as taught by Hughes.

RFM for Windows® has codified means for performing the tasks required of an RFM analysis into a software program available to the public and therefore meets the limitation of this claim. Since it could automatically receive data from a file and perform an RFM analysis, use of this software would eliminate the need to manually process the records through a spreadsheet, and would automate the process of sorting records (both into and within RFM cells). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of the Hughes-Orme combination to incorporate the software of RFM for Windows to automate the process of conducting an RFM analysis.

Furthermore, it is well settled that it is not "invention" to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result. *In re Venner*, 120 USPQ 192. It was known at the time of the invention that merely providing an automated way to replace a well-known activity which accomplishes the same result is not sufficient to distinguish over the prior art. *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958).

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER CHOI whose telephone number is (571)272-6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PC

January 18, 2008


TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNICAL